



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/510,984

10/13/2004

Masaaki Yamauchi

2004\_1444A

2248

52349

7590

06/05/2007

WENDEROTH, LIND & PONACK L.L.P.

2033 K. STREET, NW

SUITE 800

WASHINGTON, DC 20006

EXAMINER

HINES, ANNE M

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

06/05/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,984	<b>Applicant(s)</b> YAMAUCHI ET AL.	
	<b>Examiner</b> Anne M. Hines	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☒ Claim(s) 2 and 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 24, 2007 has been entered.

Claims 1-8 are pending in the instant application.

### ***Claim Objections***

Claims 5, 7 and 8 are objected to because of the following informalities:

In claim 7, the phrase "in a period when the scan electrode has a voltage level that is higher than that of the sustain electrode" is unclear. In claim 4, from which claim 7 depends, it is required that an alternating voltage is applied between the scan and sustain electrodes. The Examiner understands a 'period' in the context of an alternating voltage to describe the time required for the voltage to cycle from high to low and back again as in a sine wave. It appears to the Examiner that claim 7 is referring to the portion of the alternating voltage period when the scan electrode has a higher level than the sustain electrode. Appropriate correction is required.

In claims 5 and 8, the phrase "in a period when the sustain electrode has a voltage level that is higher than that of the scan electrode" is unclear. In claim 4, from

Art Unit: 2879

which claims 5 and 8 depend, it is required that an alternating voltage is applied between the scan and sustain electrodes. The Examiner understands a 'period' in the context of an alternating voltage to describe the time required for the voltage to cycle from high to low and back again as in a sine wave. It appears to the Examiner that claims 5 and 8 are referring to the portion of the alternating voltage period when the sustain electrode has a higher level than the scan electrode. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (US 2002/0008680) in view of Kado et al. (US 6666738) and Hirano et al. (US 2003/0030377).

Regarding claims 1 and 3, Hashimoto teaches a plasma display panel containing a scan electrode, sustain electrode, and a data electrode (Fig. 32, 104c & 105c & 108c; Page 1, Paragraphs [0005]-[0006]), and waveforms for driving the plasma display panel (Figs. 11a-11c; Page 13, Paragraphs [0185]-[0186]). Hashimoto fails to teach the method of manufacturing the plasma display panel. However, Kado teaches that during a plasma display panel manufacturing process a PDP must be aged in order to stabilize

Art Unit: 2879

the luminescence and discharge characteristics of the display (Column 2, lines 16-20). Further, Hirano teaches that PDPs are aged by driving the PDP under practical conditions of use of the PDP (Page 1, Paragraph [0008]). Therefore, it would have been obvious to one of ordinary skill in the art to use the driving waveforms Hashimoto teaches for driving the PDP under practical use to age its PDP in order to stabilize the luminescence and discharge characteristics of the display. Therefore, using the driving waveform of Figs. 11a-c to age the plasma display panel: Hashimoto teaches a driving/aging waveform for a PDP wherein application of a voltage between the scan and sustain electrodes has an alternating component and applying, an erase discharge-suppressing voltage for suppressing an erase discharge that occurs after the aging discharge to at least one of the scan electrode and the sustain electrode at a predetermined moment in each period when the scan electrode has a voltage level that is higher than that of the sustain electrode and when the sustain electrode has a voltage level that is higher than that of the scan electrode (Figs. 11a-11c; Page 13, Paragraphs [0185]-[0186]). Hashimoto further teaches wherein the erase discharge-suppressing voltage is applied to one of the scan electrode and the sustain electrode (Figs. 11a-11c; Page 13, Paragraphs [0185]-[0186]).

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (US 6376995) in view of Kado et al. (US 6666738) and Hirano et al. (US 2003/0030377).

Regarding claims 4 and 5, Kato teaches a plasma display panel containing a scan electrode, sustain electrode, and a data electrode (Fig. 1, 21 & 22 & 23; Column 7, lines 46-58), and waveforms for driving the plasma display panel (Fig. 51; Column 27, line 59 to Column 28, line 44). Kato fails to teach the method of manufacturing the plasma display panel. However, Kado teaches that during a plasma display panel manufacturing process a PDP must be aged in order to stabilize the luminescence and discharge characteristics of the display (Column 2, lines 16-20). Further, Hirano teaches that PDPs are aged by driving the PDP under practical conditions of use of the PDP (Page 1, Paragraph [0008]). Therefore, it would have been obvious to one of ordinary skill in the art to use the driving waveforms Hashimoto teaches for driving the PDP under practical use to age its PDP in order to stabilize the luminescence and discharge characteristics of the display. Therefore, using the driving waveform of Fig. 51 to age the plasma display panel: Kato teaches a driving/aging waveform for a PDP wherein application of a voltage between the scan and sustain electrodes has an alternating component and applying, an erase discharge-suppressing voltage for suppressing an erase discharge that occurs after the aging discharge to the data electrode at a predetermined moment in a period when the scan electrode has a voltage level that is higher than that of the sustain electrode (Fig. 51; Column 27, line 59 to Column 28, line 44). Kato further teaches wherein the applying of the erase discharge-suppressing voltage further includes applying the erase discharge-suppressing voltage to the data electrode at a predetermined moment in the period when the sustain electrode has a

Art Unit: 2879

voltage level that is higher than that of the scan electrode (Fig. 51; Column 27, line 59 to Column 28, line 44).

***Allowable Subject Matter***

Claims 2 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

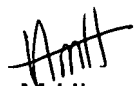
Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2879

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anne M Hines  
Patent Examiner  
Art Unit 2879



MARICELI SANTIAGO  
PRIMARY EXAMINER